

Table of Contents

SUMMARY	S-1
INTRODUCTION.....	S-1
PURPOSE AND NEED FOR ACTION	S-1
Purposes	S-2
Alternatives.....	S-5
Alternatives Considered but Eliminated from Detailed Study	S-7
AFFECTED ENVIRONMENT, ENVIRONMENTAL IMPACTS, AND MITIGATION	S-8
Land Use and Recreation	S-8
Geology, Soils, and Seismicity.....	S-10
Streams, Rivers, and Fish.....	S-11
Wetlands and Groundwater	S-14
Vegetation	S-17
Wildlife.....	S-19
Cultural Resources	S-23
Visual Resources.....	S-25
Socioeconomics, Public Services, and Utilities	S-27
Transportation	S-29
Air Quality.....	S-30
Noise	S-32
Public Health and Safety.....	S-33
CHAPTER 1 PURPOSE OF AND NEED FOR ACTION	1-1
NEED FOR ACTION	1-1
DECISIONS TO BE SUPPORTED BY THE EIS	1-3
PURPOSES	1-3
COOPERATING AGENCIES	1-4
SCOPING AND MAJOR ISSUES	1-4
OTHER PROJECTS OR DOCUMENTS RELATED TO THIS PROJECT	1-5
How THIS EIS IS ORGANIZED	1-7
CHAPTER 2 PROPOSED ACTION AND ALTERNATIVES.....	2-1
PROPOSED ACTION	2-1
Location.....	2-1
Existing Corridor	2-1
New Easements	2-4
Towers.....	2-4
Tower Footings.....	2-4
Conductors	2-5
Tree Clearing.....	2-6
Access Roads.....	2-7
Staging Areas	2-8
Substation Work	2-8
Line Planning and Construction	2-9
Construction Schedule and Work Crews.....	2-10

Maintenance	2-10
Estimated Project Cost	2-11
SHORT-LINE ROUTING ALTERNATIVES	2-11
McNary Substation Alternatives	2-11
Hanford-John Day Junction Alternatives	2-12
Corridor Miles 32 and 35 Alternatives	2-13
NO ACTION ALTERNATIVE	2-14
COMPARISON OF THE ALTERNATIVES AND SUMMARY OF IMPACTS	2-14
ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY.....	2-16
Oregon Route Alternative	2-17
McNary Substation Southeast Alternative	2-17
Increased Capacity Line Alternative.....	2-17
Underground Transmission Line Alternative	2-18
Double Circuit Alternative	2-18
CHAPTER 3 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION.....	3-1
REGIONAL SETTING	3-1
LAND USE AND RECREATION.....	3-1
GEOLOGY, SOILS, AND SEISMICITY	3-13
STREAMS, RIVERS, AND FISH.....	3-18
WETLANDS AND GROUNDWATER.....	3-30
VEGETATION	3-37
WILDLIFE	3-53
CULTURAL RESOURCES.....	3-74
VISUAL RESOURCES.....	3-87
SOCIOECONOMICS, PUBLIC SERVICES, AND UTILITIES	3-96
TRANSPORTATION	3-106
AIR QUALITY	3-110
NOISE	3-112
PUBLIC HEALTH AND SAFETY	3-118
CUMULATIVE IMPACTS	3-127
SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY	3-131
IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES	3-132
CHAPTER 4 CONSULTATION, REVIEW, AND PERMIT REQUIREMENTS.....	4-1
NATIONAL ENVIRONMENTAL POLICY ACT	4-1
THREATENED AND ENDANGERED SPECIES AND CRITICAL HABITAT.....	4-1
FISH AND WILDLIFE CONSERVATION	4-2
Fish and Wildlife Conservation Act and Coordination Act.....	4-2
Essential Fish Habitat	4-2
Migratory Bird Treaty Act	4-3
Bald Eagle and Golden Eagle Protection Act	4-3
Responsibilities of Federal Agencies to Protect Migratory Birds.....	4-4
HERITAGE CONSERVATION	4-4
STATE, AREAWIDE, AND LOCAL PLAN AND PROGRAM CONSISTENCY	4-5
Land Use Planning Framework.....	4-6
Critical Areas Ordinances	4-6
Transportation Permits	4-7

Table of Contents

COASTAL ZONE MANAGEMENT PROGRAM CONSISTENCY.....	4-7
FLOODPLAINS AND WETLANDS PROTECTION	4-7
FARMLANDS.....	4-8
RECREATION RESOURCES	4-8
GLOBAL WARMING	4-8
PERMIT FOR STRUCTURES IN NAVIGABLE WATERS.....	4-9
PERMIT FOR DISCHARGES INTO WATERS OF THE UNITED STATES.....	4-9
THE SAFE DRINKING WATER ACT.....	4-10
PERMITS FOR RIGHT-OF-WAY ON PUBLIC LANDS	4-10
AIR QUALITY	4-10
NOISE	4-11
HAZARDOUS MATERIALS.....	4-11
ENVIRONMENTAL JUSTICE	4-12
NOTICE TO THE FEDERAL AVIATION ADMINISTRATION	4-12
FEDERAL COMMUNICATIONS COMMISSION.....	4-12
 CHAPTER 5 REFERENCES.....	 5-1
PRINTED REFERENCES	5-1
PERSONAL COMMUNICATIONS.....	5-11
 CHAPTER 6 AGENCIES, ORGANIZATIONS, AND PERSONS RECEIVING THIS EIS	 6-1
FEDERAL AGENCIES	6-1
TRIBES OR TRIBAL GROUPS	6-1
STATE AGENCIES, OREGON.....	6-1
STATE AGENCIES, WASHINGTON.....	6-2
PUBLIC OFFICIALS, OREGON.....	6-2
PUBLIC OFFICIALS, WASHINGTON	6-2
LOCAL GOVERNMENTS, OREGON.....	6-3
LOCAL GOVERNMENTS, WASHINGTON.....	6-3
SPECIAL DISTRICTS	6-3
BUSINESSES	6-4
UTILITIES	6-4
LIBRARIES	6-4
INTEREST GROUPS.....	6-4
MEDIA	6-5
 CHAPTER 7 LIST OF PREPARERS	 7-1
 CHAPTER 8 GLOSSARY AND ACRONYMS.....	 8-1
GLOSSARY.....	8-1
ACRONYMS.....	8-6

List of Figures

S-1	Vicinity Map	follows S-2
1-1	Proposed Generation and Transmission Facilities in NE Oregon and SE Washington	follows 1-2
1-2	How This EIS is Organized	1-8
2-1	Vicinity Map	follows 2-2
2-2	Tower Configurations in Right-of-Way.....	follows 2-4
2-3	Conductors, Groundwires, and Fiber Optic Cables	2-6
2-4	McNary Substation Alternatives	follows 2-8
2-5	Hanford-John Day Junction, Alternative A-North Side	follows 2-12
2-6	Hanford-John Day Junction, Alternative B-South Side	follows 2-12
2-7	Hanford-John Day Junction, Alternative C-South Side, Highway	follows 2-12
2-8	Corridor Mile 32 Alternatives, Corridor Mile 35 Alternatives	follows 2-14
3-1	Land Use, Ownership and Recreation.....	follows 3-6
3-2	Streams, Fish and Wetlands	follows 3-18
3-3	Vegetation Communities.....	follows 3-38
3-4	Wildlife	follows 3-56
3-5	Photosimulation 1, Corridor Mile 49, In Town of Roosevelt, Looking West.....	follows 3-92
3-6	Photosimulation 2, Corridor Mile 65, Looking West Across State Route 14.....	follows 3-92
3-7	Transportation Features.....	follows 3-92
3-8	Right-of-way Configuration 1.....	3-122
3-9	Right-of-way Configuration 2.....	3-123
3-10	Right-of-way Configuration 3.....	3-123
3-11	Right-of-way Configuration 4.....	3-124
3-12	Right-of-way Configuration 4A	3-124
3-13	Right-of-way Configuration 4B	3-125

List of Tables

S-1	Short-Line Routing Alternatives at Four Locations Along the Project Corridor.....	S-5
S-2	Summary of Impacts of Short-Line Alternatives, McNary-John Day Transmission Project	follows S-36
2-1	Comparison of the Proposed Action and No Action Alternatives	2-14
2-2	Comparison of Short-Line Routing Alternatives.....	2-15
2-3	Potential Impacts and Mitigation of the McNary-John Day Transmission Line Project.....	follows 2-19
2-4	Summary of Impacts of Short-Line Alternatives, McNary-John Day Transmission Project	follows 2-19
3-1	Summary of Land Uses within the Project Corridor by County and Structure Number.....	3-3
3-2	Formal Recreational Sites in the Vicinity of the Project Corridor.....	3-4
3-3	Acreage of Land Uses that Would Be Occupied by Permanent Project Facilities.....	3-9
3-4	Proportion of Agricultural Land in Each County that Would Be Occupied by Permanent Project Facilities	3-10
3-5	Impacts of Short-Line Routing Alternatives: Land Use and Recreation	3-11
3-6	Soil Types Along the Project Corridor	3-15
3-7	Streams Intersected by the Project Corridor.....	3-18
3-8	Impacts of Short-Line Routing Alternatives: Fisheries	3-27
3-9	Potential Construction Impacts on Groundwater	3-34
3-10	Impacts of Short-Line Routing Alternatives: Wetlands and Groundwater	3-35
3-11	Locations of Noxious Weed Species Along the Project Corridor	3-42
3-12	Permanent Impacts to Vegetation	3-43
3-13	Temporary Impacts to Vegetation	3-44
3-14	Estimated Temporary Impacts to Native Plants and Cryptogamic Crusts by Cover Type	3-49
3-15	Estimated Permanent Impacts to Native Plants and Cryptogamic Crusts by Cover Type	3-49
3-16	Impacts of Short-Line Routing Alternatives: Vegetation	3-50

3-17	Sensitive Wildlife Species Potentially Occurring in the Project Corridor and Project Vicinity	3-54
3-18	Impacts of Short-Line Routing Alternatives: Wildlife	3-71
3-19	Impacts of Short-Line Routing Alternatives: Visual Resources	3-94
3-20	Common Noise Levels	3-112
3-21	Construction Equipment Noise Associated with the Proposed Project	3-114
3-22	Construction Noise in the Vicinity of a Representative Construction Site	3-114
3-23	Typical Magnetic Field Strengths	3-119

List of Appendices

- A Agency Correspondence and Policies
- B Public Involvement
- C Common and Scientific Names of Plants in the Project Corridor
- D Common and Scientific Names of Animals in the Project Corridor
- E Socioeconomic Data
- F Living and Working Safely Around High-Voltage Power Lines
- G Electric and Magnetic Fields